

REcomMEndations for DIagnosticS and MaNagement of Arterial Hypertension in Adults Aged 65 Years and Older for General Practitioners — REMEDIA NT 65+ GP

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Epidemiology of hypertension in the elderly

Hypertension, due to its high prevalence, remains the most important risk factor of premature deaths worldwide, also in elderly patients. There is a linear relationship between blood pressure (BP) and the mortality and incidence of cardiovascular diseases (myocardial infarction, stroke, peripheral artery disease) and renal failure in this age group, both in men and in women. In middle age-patients, systolic blood pressure better describes cardiovascular risk, and in elderly patients pulse pressure, i.e. the difference between the systolic and diastolic pressures, is an additional indicator of increased risk.

The incidence of hypertension increases with age; it affects around 10% of people aged 18–39 years, around 40% of those aged 40–59 years and exceeds

65% in the 60–79 age group. Data from the last 20 years indicate a continuous increase in the prevalence of hypertension in people aged 60–79 years in Poland. According to the NATPOL 2011 study, the prevalence of hypertension in this age group increased from 55 to 64% in men and from 61 to 71% in women over the last 10 years — overall around 4 million people. This is confirmed by data from the WOBASZ 2014 survey. Additionally, according to the results of the POLSENIOR study, there are about 1 million people with hypertension aged 80 years and older. If current trends persist, the number of patients with hypertension may increase by half by 2035, provided that diagnostic criteria remain the same. In the United States, hypertension, currently defined as BP > 130/80 mm Hg, affects 76% of people aged 65–74 and 82% of those aged 75 and older.

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Diagnosis of hypertension in patients over 65 years of age

The basis for the diagnosis of hypertension, also in the elderly, is properly performed BP measurement. Other examinations are used to assess cardiovascular risk and determine the cause of hypertension. Because the BP value is not constant, the required number of measurements and preferred methods of BP measurement depend on clinical situation. It is currently recommended to measure BP on the arm using a semi-automated auscultatory or oscillometric sphygmomanometer. The 2018 ESH/ESC Guidelines recommend prophylactic BP measurement every 1–5 years depending on the BP level (optimal, normal or high normal). We recommend that in the elderly, the BP measurement should be performed every 6–12 months, because studies have shown that the 4-year rate of hypertension development is much higher in this age group.

Classification

Until recently, there was a consensus around the world about the classification of hypertension based on the cut-off BP value of 140/90 mm Hg dividing the population of adults into those with normal BP and hypertensives. Classifications of hypertension were very similar in the USA (the JNC 8 Hypertension Guidelines) and Europe (the 2013 ESH/ESC Guidelines), and the classification proposed by ESH/ESC was adopted in European national recommendations, also in Poland (2015 PTNT guidelines). In 2017, the American guidelines (ACC/AHA High Blood Pressure Guidelines) were published which included a new classification of hypertension based on the cut-off value of 130/80 mm Hg, with 10–20 mmHg lower thresholds for normal BP categories and degrees of hypertension. This new classification, having a huge impact on the initiation of antihypertensive treatment and target BP values, i.e. the aggressiveness of therapy, was not adopted in the 2018 ESH/ESC Guidelines. Also in REMEDIA NT 65+

GP, we propose to keep using hypertension classification based on office measurements, with three grades of hypertension, and a separate category for isolated systolic hypertension (ISH). This classification also comprises three categories for normal BP: optimal, normal and high-normal.

Detailed classification of hypertension is presented in Table I.

Diagnosis

Older age is not a reason to change the classification of hypertension and the principles of the diagnosis of this disease. Hypertension is diagnosed if the mean BP values (calculated from at least two measurements made during at least two different visits) are equal to or higher than 140 mmHg for systolic blood pressure and/or 90 mm Hg for diastolic blood pressure.

In patients with BP <160/100 mm Hg, diagnosis of hypertension should be confirmed by ambulatory blood pressure monitoring (ABPM) or, if it is not possible, by performing home BP measurements, adopting different normal values for these measurements, as presented in Table II. This is particularly important in elderly patients, because they are characterized by a high variability of BP due to vegetative dysfunction. Therefore, office measurements often do not reflect the real average BP values. In elderly patients, depending on their mental status, home measurements should be supervised or performed by family members.

In patients with BP $\geq 180/\geq 110$ mm Hg it is acceptable to diagnose hypertension at the first visit, after excluding factors increasing blood pressure, such as anxiety, pain etc. Hypertension can also be diagnosed based on reliable data from patients' history or medical records (high BP values or taking antihypertensive drugs).

Diagnostic challenges

Apart from the difficulties in diagnosing hypertension resulting from typical errors in the BP mea-

Table I. Classification of normal blood pressure and hypertension

Category	Systolic blood pressure [mm Hg]		Diastolic blood pressure [mm Hg]
Optimal	< 120	and	< 80
Normal	120–129	and/or	80–84
High normal	130–139	and/or	85–89
Grade 1 hypertension	140–159	and/or	90–99
Grade 1 hypertension	160–179	and/or	100–109
Grade 1 hypertension	≥ 180	and/or	≥ 110
Isolated systolic hypertension	≥ 140	and	< 90

Table II. Blood pressure (BP) thresholds for diagnosis of hypertension according to ambulatory or home measurements

Category	Systolic blood pressure [mm Hg]		Diastolic blood pressure [mm Hg]
Ambulatory BP			
Daytime (or awake)	≥ 135	and/or	≥ 85
Night-time (or asleep)	≥ 120	and/or	≥ 70
24 h mean	≥ 130	and/or	≥ 80
Home BP	≥ 135	and/or	≥ 85

surement technique (patient preparation, inappropriate cuff, bad arm position, etc.), which are not related to age, there are also diagnostic challenges typical of old age. In about 10% of older patients, a difference between BP values measured in the right and left arm exceeds 10 mm Hg. The aforementioned vegetative dysfunction translates into orthostatic hypotension episodes (it is important to measure BP in supine and standing positions) and postprandial hypotension. Also, white coat phenomenon is more frequently observed in this group of patients.

Another diagnostic challenge in older people may be pseudo-hypertension, which is an overestimation of BP values in cuff measurements due to excessive stiffness of the brachial artery, often caused by its calcification. Pseudo-hypertension should be suspected when very high BP values are recorded in the absence of organ complications. Osler's manoeuvre has been recommended for identifying patients with pseudo-hypertension.

Clinical evaluation

Diagnostic workup after detecting hypertension in elderly patients is identical to that in younger patients. Each patient should undergo a full clinical examination including detailed medical history and physical examination, with particular focus on potential pathologies indicating secondary hypertension and the presence of organ-related complications. Other cardiovascular risk factors should be sought and in case of clinical suspicion, tests for organ damage and other diseases should be performed, including the assessment of cardiovascular system, in order to determine the cause of hypertension (searching for secondary forms of hypertension). Elderly patients are characterized by more frequent presence of cardiovascular risk factors and concomitant diseases. It should be remembered that age itself is an important risk factor; therefore, when assessing global cardiovascular risk, higher risk level should be chosen in borderline situations.

The assessment of cognitive functions of the patient and, if necessary, tests aimed at detecting the

features of dementia are particularly important in the elderly.

Laboratory tests

All elderly patients with hypertension should undergo basic laboratory tests: blood counts, fasting glucose, sodium and potassium levels, total cholesterol, HDL (high-density lipoprotein) cholesterol, LDL (low-density lipoprotein) cholesterol, triglycerides, creatinine concentration and estimated glomerular filtration rate, uric acid concentration, urinalysis, albuminuria and electrocardiogram.

Additional diagnostic tests should be performed in patients in whom medical history, physical examination or basic laboratory tests indicate the need for extended diagnostics including cardiac echocardiography, carotid and urethral ultrasound, assessment of albuminuria and, in the case of a positive result, quantitative measurement of urinary protein excretion, assessment of 24h urinary sodium and potassium excretion, fundoscopy, oral glucose tolerance test (OGTT), ABPM, 24-hour ECG recording in the event of arrhythmia, and evaluation of ankle-brachial index (ABI) and pulse wave velocity (PWV).

Diagnosis of secondary hypertension

The most common cause of secondary hypertension in the elderly is chronic kidney disease. However, patients in whom hypertension remained undiagnosed for a long time or was ineffectively treated, secondary kidney injury (hypertensive nephropathy) may occur, which should be differentiated from primary kidney injury. A relatively common cause of secondary hypertension in older patients is narrowing of one or both renal arteries due to atherosclerosis. In this situation, there is a sudden increase in the BP, resistance to treatment and accompanying deterioration of kidney function. In these patients complete diagnostic workup should be made according to generally accepted principles, bearing in mind that contrast imaging should be performed with caution and prophylaxis of contrast nephropathy should be provided.

Isolated systolic hypertension

Isolated systolic hypertension is defined as permanently elevated systolic blood pressure (> 140 mm Hg) with normal diastolic blood pressure (< 90 mm Hg). It is the most prevalent form of hypertension in elderly patients. The pathogenesis of this type of hypertension is well established and is believed to be due to the reduction of elasticity and distensibility of the aorta and large arteries caused by increasing with age and progression of atherosclerosis deposition of calcium and collagen in the arterial wall, at the expense of elastin content. This leads to reduced “buffering” (increase in systolic BP) and “air-chamber” functions (decrease in diastolic RR) of the aorta.

Although systolic blood pressure is the key parameter determining the cardiovascular risk, the reduced diastolic pressure is a pathophysiological factor determining the so-called J curve, i.e. an increase in the risk of ischaemic heart disease with excessive decrease of diastolic BP. This has its therapeutic implication — striving for lowering systolic BP may be associated with the risk of excessive reduction of diastolic BP. This problem will be reflected below in the recommendations regarding target BP values in patients with this type of hypertension. It is worth remembering that antihypertensive drugs reduce both BP parameters proportionally and, despite between-drug differences in this respect, do not quickly affect the aortic compliance, a factor determining the increase in systolic BP and at the same time lowering the diastolic BP.

Thiazide-like diuretics and dihydropyridine calcium antagonist are preferred in the treatment of isolated systolic hypertension. This recommendation is based on the results of three clinical trials in patients with isolated systolic hypertension: SHEP (Systolic Hypertension in the Elderly Program), Syst-Eur

(Systolic Hypertension in Europe) and HYVET (Hypertension in the Very Elderly Trial).

Treatment of hypertension

Criteria for initiating antihypertensive therapy

The consequence of the new classification of hypertension proposed in the American 2017 ACC/AHA Guidelines is the change in the principles of pharmacological treatment of hypertension, also in elderly patients. American guideline recommend initiation of antihypertensive drug therapy when the BP is $> 130/80$ mm Hg. These recommendations are also reflected in the change of the pharmacotherapy initiation criteria in the current European 2018 ESH/ESC Guidelines, despite the fact that they did not adopt the American classification. The 2018 ESH/ESC Guidelines, however, do not recommend such an early, „aggressive” introduction of antihypertensive drug therapy in elderly patients.

Therefore, criteria for the initiation of antihypertensive therapy suggested in the REMEDIA NT 65+ GP, which are presented in Table III, are based largely on the 2018 ESH/ESC 2018 Guidelines.

Blood pressure targets

One of the most discussed topics last year in antihypertensive therapy was an attempt to question in most patients with hypertension the current BP target of $< 140/90$ mm Hg. This discussion was initiated after issuing the American 2017 ACC/AHA guidelines that recommend BP target of $< 130/80$ mm Hg practically in all patients with hypertension, including the elderly. The basic argument for this approach is the data from a large, randomized SPRINT (Systolic Blood Pressure Intervention Trial) study,

Table III. Initiation of antihypertensive therapy in elderly patients according to office blood pressure

Recommendation	Class of recommendation	Level of evidence
Lifestyle interventions are recommended in all patients aged > 65 years with SBP $\geq 130/85$ mm Hg (high normal BP)	I	A
Pharmacotherapy of hypertension is recommended in fit patients aged 65–80 years with SBP ≥ 140 mm Hg, provided that treatment is well tolerated	I	A
Initiation of pharmacotherapy of hypertension is recommended in fit patients older than 80 years with SBP ≥ 160 mm Hg	I	A
Initiation of pharmacotherapy of hypertension may be considered in patients with frailty syndrome (usually those older than 80 years) with SBP ≥ 160 mm Hg, provided that treatment is well tolerated	II	B
Withdrawal of well-tolerated antihypertensive therapy when patients attain the age of 65 or 80 years, which is associated with lack of indications for drug therapy, is not recommended	III	A

BP — blood pressure; SBP — systolic blood pressure

Table IV. Blood pressure treatment targets in elderly patients

Recommendation	Class of recommendation	Level of evidence
In patients aged 65–80 years, it is recommended that target SBP value should be < 140 mm Hg, but not lower than 130 mm Hg	I	A
In patients aged > 80 years, it is recommended that target SBP values should be < 150 mm Hg, but not lower than 130 mm Hg	II	A
In patients aged > 65 years, it is recommended that target DBP should be < 80 mm Hg, but not lower than 70 mm Hg	I	A
In patients with isolated systolic hypertension aged > 65 years, it is recommended that target SBP should be < 140 mm Hg and target DBP should not be lower than 65 mm Hg	II	B
Changing well-tolerated and effective (treatment target achieved) blood pressure-lowering therapy when patients attain 65 or 80 years, which results in new BP target ranges, is not recommended	III	C

BP — blood pressure; SBP — systolic blood pressure; DBP — diastolic blood pressure

in which treatment targeting systolic BP to < 120 mmHg was associated with a reduction in the risk of death and/or cardiovascular disease by about 30% (including a sub-analysis of patients older than 75 years of age) compared with the traditional BP target (< 140 mm Hg). As a consequence, some of the latest meta-analyses including the SPRINT study yielded similar conclusions. However, there are serious reservations about the correctness of the conclusions drawn based on the SPRINT study due to the applied BP measurement procedure without the participation of a physician, thus lowering the readings due to the elimination of the white coat phenomenon, and the accepted recruitment methodology resulting in the majority of patients already using combination therapy and well adapted to low BP values.

These reservations are partly shared by the authors of the 2018 ESH/ESC Guidelines, who recommend in elderly patients, differently than in younger patients, systolic BP target of < 140 mm Hg, i.e. the previously used value, and not lower than 130 mmHg, regardless of the level of cardiovascular risk and vascular complications, while lowering the diastolic BP target to < 80 mm Hg.

A much more cautious approach to the principles of initiating pharmacotherapy and blood pressure targets has been adopted by the authors of the American College of Physicians and the American Academy of Family Medicine guidelines for the treatment of hypertension in elderly patients published in 2017, based on a meta-analysis of the benefits and risks of intensive reduction of BP. They recommend that in elderly patients pharmacological therapy should be initiated at BP higher than 150 mmHg and aiming to a target of < 150 mm Hg. In patient with a history of stroke or TIA, BP target should be < 140 mm Hg. Such BP target can be also adopted in

patients with high global cardiac risk after discussing with the patient potential benefits and risks.

It is also worth noting that the HYVET, which still remains the only study specifically designed to address hypertension in patients over 80 years of age, and not a sub-analysis, demonstrated the benefits of antihypertensive therapy (systolic BP target was <150 mm Hg) in this age group.

Target BP values for elderly patients in various clinical situations proposed in the REMEDIA NT 65+ GP, which are presented in Table IV, represent an attempt to balance the arguments presented in different guidelines, taking into account the specificity of older patients with lower haemodynamic adaptability, the occurrence of frailty syndrome and isolated systolic blood pressure, as well as the specificity of a family doctor practice.

Non-pharmacological treatment

Non-pharmacological treatment of hypertension consists in the implementation of lifestyle changes that significantly reduce BP values, increase the effectiveness of pharmacological treatment and may reduce the risk of cardiovascular complications. Lifestyle modification is the first and necessary element of therapy, regardless of the degree of hypertension, also in elderly patients.

These recommendations are not significantly different for patients over 65 years of age and are summarized in Table V based on the 2018 ESH/ESC Guidelines.

In many older patients, the recommendation of physical exercise is difficult to implement; however, they should not give up physical activity, but adjust it to their individual abilities. It is also important that caution should be exercised in limiting salt intake in patients with dementia.

Table V. Recommendations for lifestyle changes in elderly patients with hypertension

Recommendation	Class of recommendation	Level of evidence
Reduction in the use of salt to < 5 g/day (adding salt to dishes and eating pre-served products should be avoided)	I	A
Restriction of alcohol consumption to no more than 10 g of pure ethanol in women and no more than 20 g of pure ethanol in men	I	A
Maintaining normal body weight (BMI < 25 kg/m ²) with increased consumption of vegetables and other food of plant origin (4–5 servings)	I	A
Regular aerobic exercise (optimum > 30 min., 5–7 days per week) adjusted to physical fitness of elderly people	I	A
Smoking cessation	I	B

BMI — body mass index

Drug choice

The first-line drugs in the treatment of hypertension, also in the elderly, are those from five basic groups of antihypertensives, as indicated in American and European guidelines on hypertension treatment. However, the importance of these drug groups is different in older patients, which will be discussed below. These are:

- thiazides/thiazide-like diuretics;
- β -blockers;
- calcium antagonists;
- angiotensin-converting enzyme inhibitors (ACEIs);
- angiotensin receptor blockers (ARBs), commonly called sartans.

In addition, due to the significantly increased role of single-pill combinations (SPCs), the importance of specific groups of antihypertensive drugs in current guidelines, i.e. 2017 AHA/ACC and 2018 ESH/ESC Guidelines, depends largely on the availability of SPCs including these drugs.

Thiazides, thiazide-like diuretics

Thiazides/thiazide-like diuretics are among the basic antihypertensive therapies for older patients, and in patients over 80 years are the drugs of choice (indapamide), because their use is supported by a lot of evidence from large clinical trials (HYVET, PATS [Post-stroke Antihypertensive Treatment Study]) indicating their beneficial role in cardiovascular risk prevention. Indapamide is available in two- and three-drug combinations, which enables the initiation or intensification of therapy according to the algorithm presented below. It should be emphasized that the full hypotensive effect of thiazides/thiazide-like diuretics occurs only after several days of treatment. Research carried out in recent years has provided data showing that thiazide-like diuretics (chlorthalidone, indapamide) should be preferred among diuretic agents not only

because of more evidence of benefits in terms of cardiovascular risk reduction from large clinical trials, but also the low usefulness of hydrochlorothiazide monotherapy at currently used smaller doses of 12.5–25 mg (weaker and short-term hypotensive effect). Moreover these drugs have a more favourable metabolic profile.

Beta-blockers

Beta-blockers are less important in the treatment of uncomplicated hypertension in the elderly. However, they are used in this age group for treating patients with concomitant heart failure and coronary heart disease, especially those after myocardial infarction or with inoperable dissecting aortic aneurysm. The choice between vasodilating β -blocker (nebivolol, carvedilol) and the classical cardioselective β -blocker (bisoprolol) is determined by the influence on the heart rate. The chronotropic effect is more pronounced in the case of classical cardioselective beta-blockers. Bisoprolol is the only drug of this group available in SPC — with dihydropyridine calcium antagonist (amlodipine) or ACE inhibitor (perindopril).

Calcium antagonists

Apart from diuretics, calcium antagonists are also one of the main groups of drugs used in the treatment of hypertension in elderly people. Dihydropyridine calcium antagonists, with significantly more clinical evidence from large clinical trials, should be preferred, especially in patients with isolated systolic hypertension (Syst-Eur). Most clinical evidence from major clinical trials on cardiovascular risk reduction is based on amlodipine, which is available in many single-pill combinations. Due to the relatively frequent occurrence of lower limb oedema after amlodipine therapy, alternative therapy is suggested with other long-acting dihydropyridine calcium antagonists that are better tolerated, lercanidipine and lacidipine.

ACE inhibitors and sartans

Both groups of drugs blocking the renin-angiotensin system are used in the treatment of hypertension in elderly patients with organ damage and high cardiovascular risk associated with ischaemic heart disease, heart failure, kidney disease and hypertension coexisting with the metabolic syndrome and/or diabetes mellitus, and — in combination with a thiazide-like diuretic — in patients after stroke. Although conclusions from various meta-analyses are inconsistent, it appears that ACE inhibitors have some advantages over sartans in reducing the risk of cardiovascular events, while sartan therapy is associated with less common adverse effects. Drugs from both groups are widely available and used in basic two- and three-drug (only perindopril and valsartan) SPCs.

Single-pill combinations

The role of SPCs in the treatment of hypertension has remarkably increased. It is reflected by the 2018 ESH/ESC Guidelines which recommend starting antihypertensive therapy with drug combination, preferably in a SPC. Single-pill combinations are also preferred for treatment intensification. In elderly patients, due to higher target BP values recommended in Europe, also in this document, SPCs will probably not be used as widely to initiate treatment as in younger patients, especially in patients with 1st degree hypertension. Nevertheless, the importance of the following three types of SPC in the treatment of elderly patients should be emphasized: a combination of a thiazide/thiazide-like diuretic with a dihydropyridine calcium antagonist, which is a basic

combination for older patients with uncomplicated hypertension, and combinations of a RAS system blocker with a thiazide/thiazide-like diuretic or a dihydropyridine calcium antagonist at substandard doses. Among these SPCs, available are only combinations based on thiazide-like diuretic indapamide, the most popular dihydropyridine calcium antagonist amlodipine and angiotensin converting enzyme inhibitor perindopril.

Antihypertensive treatment algorithm

The drug treatment algorithm for hypertension presented in the 2018 ESH/ESC Guidelines assumes almost universal application of SPC for treatment initiation and intensification. It seems that in older patients, especially those over 80 years of age, initiation of drug therapy should be more cautious due to the higher recommended BP target. According to the algorithm of antihypertensive treatment presented in Figures 1 and 2, treatment initiation in older patients with 1st degree hypertension and in patients over 80 years of age with 2nd degree hypertension should be based on a single drug or a SPC of two drugs in substandard doses.

The algorithm also takes into account that thiazides/thiazide-like diuretics or dihydropyridine calcium antagonists are the preferred drugs for initiation of antihypertensive therapy in patients over 65 years of age, especially those with isolated systolic hypertension, and that the HYVET study assessing the indapamide-based therapy, which is the only study designed specifically for patients aged 80 years and over, and not a sub-analysis, demonstrated the

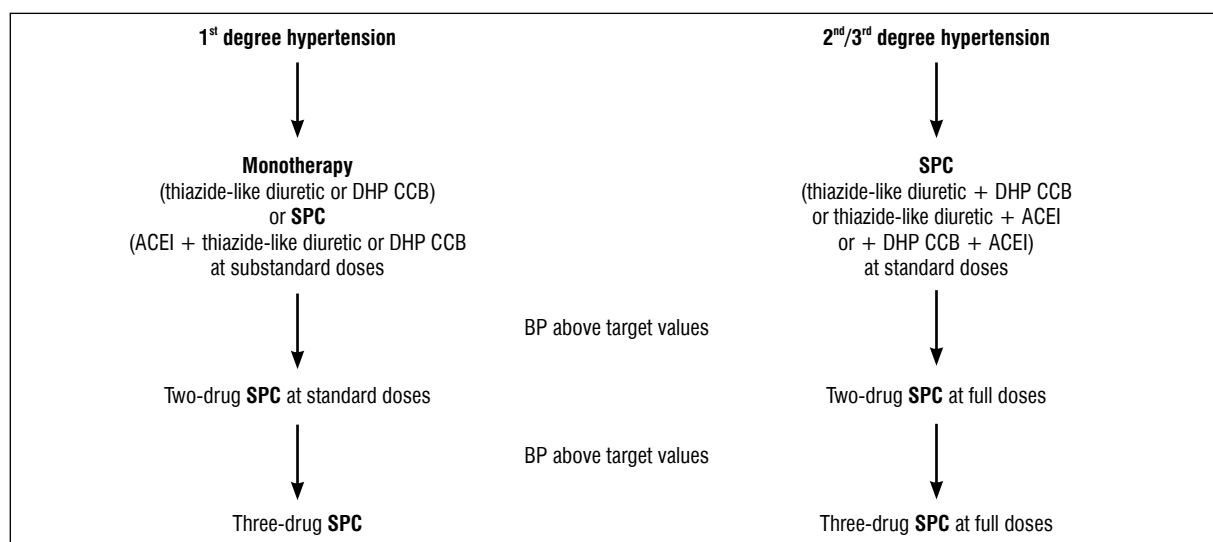


Figure 1. Algorithm of antihypertensive treatment in patients aged 65–80 years. SPC — single-pill combination; ACEI — angiotensin-converting enzyme inhibitor; DHP CCB — dihydropyridine calcium antagonist

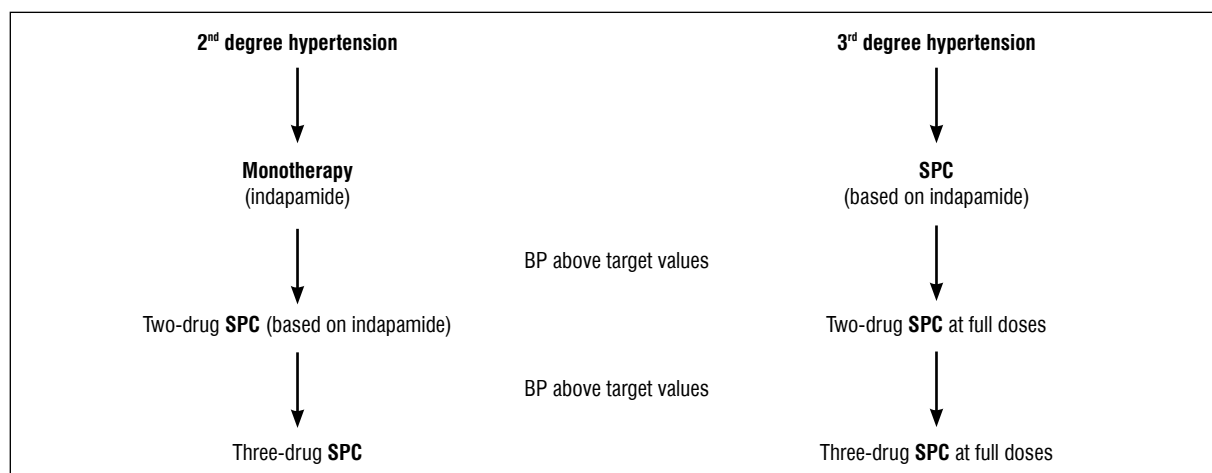


Figure 2. Algorithm of antihypertensive treatment in patients aged > 80 years. SPC — single-pill combination

benefits of antihypertensive therapy in terms of reduction of cardiovascular death, stroke and heart failure in this age group.

Individualization of antihypertensive therapy in patients over 65 years of age

The algorithm of antihypertensive treatment presented in the REMEDIA NT 65+ GP is intended for use in patients with uncomplicated hypertension. In the case of significant organ damage, cardiovascular complications and concomitant diseases, this algorithm needs modification, i.e. individualization of antihypertensive therapy according to separate standards of treatment of these diseases with the use of drugs that also have hypotensive effect. Essentially, old age does not affect the principles of treatment individualization, which are detailed in the 2015 PTNT Guidelines.

In the era of SPCs' primacy, it is worth recalling that:

- in patients with **left ventricular hypertrophy** the treatment associated with the greatest chance for disease regression is the combination of a RAS blocker with dihydropyridine calcium antagonist;
- in patients after **stroke** a thiazide diuretic in combination with an ACE inhibitor (PROGRESS) is recommended;
- in patients with concomitant **ischaemic heart disease** or **heart failure** a combination of a beta-blocker with an ACE inhibitor is recommended;
- in patients with **chronic kidney disease** a combination of a RAS blocker with a dihydropyridine calcium antagonist is recommended;
- in patients with **diabetes** a combination of a thiazide diuretic with an ACE inhibitor (ADVANCE) is recommended.

All listed drug combinations are available in the form of SPC.

Cooperation between elderly patients and doctors

Poor patient/doctor cooperation, i.e. non-adherence to medical recommendations, is one of the important reasons for the low effectiveness of antihypertensive therapy, also in elderly patients. Therefore, it is the doctor's responsibility to take actions to improve patient's compliance and persistence with prescribed therapy from its initiation to discontinuation. Studies show that older patients are more motivated for treatment. They are characterized by greater therapeutic persistence, while compliance with recommended treatment regimes, i.e. the percentage of doses of drugs taken, is worse than in younger patients. One of the reasons of poor compliance of elderly patients may be age-related memory problems, difficulty in understanding the dosing schedule, worse tolerance of normal BP values, difficulty affording prescribed medications or presence of concomitant diseases associated with more symptoms and the need for multiple medications. Hence, doctors need to give elderly patients more time to explain the dosing schedule and the importance of antihypertensive treatment, and sometimes to involve family members or determine the economic status of an elderly patient.

Two changes in the guidelines for the treatment of hypertension presented in this document may improve the patient's compliance. Adopting slightly higher BP targets improves older patients' ability to tolerate treatment and treatment-related change

of quality of life. Also, a significant increase in the role of SPCs in the treatment of hypertension may contribute to improved compliance by reducing the number of pills to be taken and simplifying the dosing regimens.

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